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Workman, Barbara (2009) The core components: teaching, learning and assessing. In: Work based learning: journeys to the core of higher education. Garnett, Jonathan, Costley, Carol ORCID logoORCID: <https://orcid.org/0000-0002-7996-8908> and Workman, Barbara, eds. Middlesex University Press, London, pp. 189-204. ISBN 9781904750192. [Book Section]

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Section 2

Teaching, Learning and Assessing Work Based Learning

Barbara Workman

Traditionally teachers who inspire students to learn are generally considered to be effective at teaching. However, to learn effectively usually depends more on the student's motivation and capacity to learn than the teacher's ability to teach (Knowles 2005). In this day and age when information is instantly generated, used and discarded rapidly, it seems reasonable to suggest there has to be some enduring characteristics of teaching that help learning to happen. When considering learning from work, it is conceivable that while all workers have an opportunity to learn from their work, there is no guarantee that all learning is good, neither is it always effective nor does it always enable progressive or positive learning (Boud & Garrick 1999). However, the work based learning programmes endeavour to use some key teaching, learning and assessment theories and interventions in order to maximise experiential learning from whatever source, whether that be full or part time, paid or voluntary work, life experiences or domestic responsibilities. This chapter will discuss some of the specific teaching, learning and assessment strategies which have been used to enable work based learning to happen across the University as identified in part 1 of this book. These strategies make a positive contribution to autonomous learning by individuals and are those upon which Middlesex University's WBL programmes are predicated. Some of the theoretical frameworks which underpin our learning approaches will be considered. It will discuss how the development and use of level criteria have provided benchmarks by which programmes are managed and assessed and how this contributes to a sound academic framework in which the learner is able to negotiate an individual programme, become an independent learner, and develop skills of lifelong learning and inquiry in order to meet personal and professional development needs.

Reflection, adult learning and experiential learning

Theories related to learning through reflection upon experience such as Kolb (1984) and Schön (1987) have informed the work based learning curriculum and are integrated within each stage of the work based learning programme to facilitate learning from reflection. Theories of adult learning have also informed our approach to work based learning, in particular those which recognise the social constructions of learning such as the humanistic view that adult learning is shaped by individuals self identified learning needs with the teacher as facilitator, rather than as the repository of all knowledge (Rogers, 1983). The andragogical approach (Knowles 2005) that recognises and values learning from experience, stimulated and motivated by the need to know, also makes a significant contribution as well as the political imperatives that drive lifelong learning, the dual agendas of widening access and participation as well as employer engagement in education.

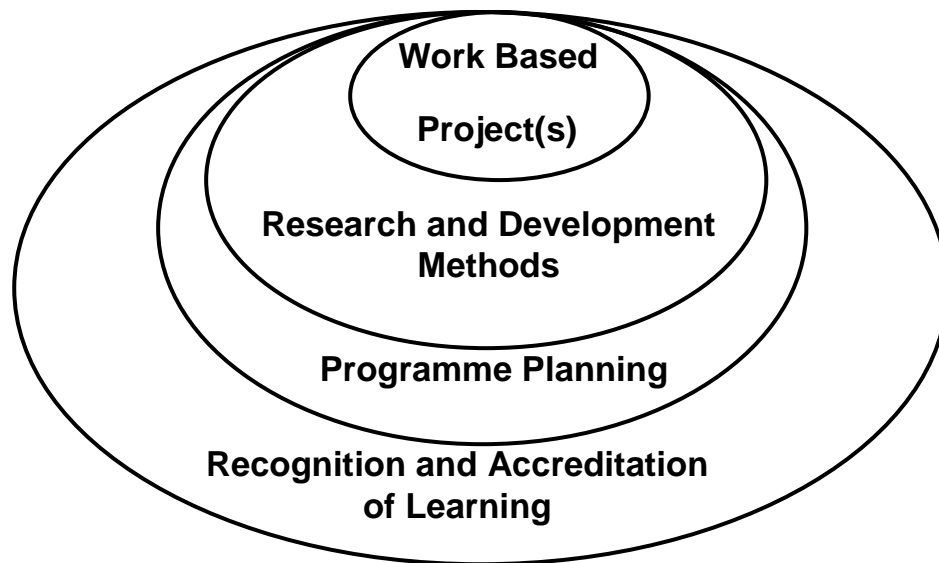
There are four curriculum components in the WBL programme, each with different types of learning activities and assessment requirements:

1. Review of learning (APEL) and accreditation; compilation of portfolio of experiential learning supported by evidence and a reflective essay.

2. Programme planning; a negotiated and structured 3 way learning agreement between the student, employer or sponsor and the University
3. Research and development; portfolio of learning and a project proposal with critical commentary demonstrating the growth of research-mindedness
4. Work based projects; a real time work based project, relevant to the learners work

These build upon one another as indicated in Figure 1 below.

Figure 1: Core components of WBL programme (Garnett 2005)



Work based learning programmes typically start with reviewing learning and an accreditation claim, which engages the learner at the outset as the assessment relies on a compilation of their personal learning, together with evidence to support their APEL (Accreditation of Prior Experiential Learning) claim. It draws on the work practices and experience of the individual to identify learning achievement which can be recognised by the award of academic credit. This accredited learning forms the foundation of the individual's negotiated programme, building upon personal experiential learning and providing the focus for future learning. Such learning may initially come from accredited organisational training programmes or continuous professional development, or from other experiences and activities outside a traditional academic teaching environment. These are explored through the use of reflective activities and are assessed as 'General' credit or 'Specific' credit. General credit is awarded for learning demonstrated by the claimant, and does not have to demonstrate a match with taught programmes. Specific Credit matches specific learning outcomes from programmes which the claimant has chosen to demonstrate s/he has the equivalent learning from a source other than through taught programmes in the University. General credit is favoured by the majority of the students as it reflects their real world experiences, but allows more flexibility in relation to subject content, whilst still attaining HE level descriptors.

Facilitating Learning

Accreditation of learning recognises and further develops learning that has occurred outside a learning institution, building upon it to give the learner skills to learn for themselves, even when the knowledge content becomes outmoded. It does this by involving the learner in negotiating his/her own programme content, aiding reflection upon practice and knowledge, developing action planning skills and sharpening critical thinking (Osbourne et al 1998). Osbourne et al (1998) note that the role of the teacher, or rather ‘adviser’, the term preferred by the WBL programme, is one who mediates the learning process, eliciting the learning and programme outcomes from the learner, translating them into academic discourse, and altogether facilitating the learning process and the learner’s personal learning journey. There is an emphasis on enabling the learner to discover deep learning approaches by linking learning to problem focused working so that the relevance of new knowledge and skills is immediately applicable, with the added bonus of the learner becoming highly motivated and taking personal responsibility for his/her own learning, thus becoming autonomous and self-directed learners. The real measure of the effectiveness of such learning becomes that of an individual’s personal growth and self development throughout the programme so that the end product is; “... *not what you know that matters, it’s not even what you do with what you know, but what you do when you don’t know – and how efficiently and effectively you do it*”, (Osbourne et al 1998: 91).

Progression through the programme is enabled by a three way negotiated learning agreement between the student, their employer/ sponsor and the university who is represented by the learner’s WBL adviser, who is an academic with knowledge of the WBL programme and who has access to colleagues with appropriate discipline knowledge where necessary. The learning agreement identifies the learning that will be undertaken in the form of work based projects, and, or, taught modules where applicable, and therefore appropriate methods of learning and assessment for that individual’s programme will depend on negotiations with the student’s adviser to ensure a good fit between the proposed learning and assessment strategies. The role of adviser is therefore, as an enabler and facilitator. Often, particularly at post graduate level, the learner is more informed about their area of practice than the adviser is, but the adviser is in a position to translate academic demands to fit the needs of the workplace and intervene in response to work or academic constraints (Boud & Costley 2007). This progression into new learning is preceded by a research and development module, which encourages the learner to acquire methods of critical appraisal and inquiry to equip themselves with new knowledge and learning skills for their proposed new learning in the form of WBL projects.

As the curriculum is of the workplace and work is the curriculum (Boud 2001) there are a great range of differences in terms of project outcomes that work based learning must accommodate. For example, the demands of the project work of an office manager will be very different from someone who teaches dance or reviews risk assessment in a shipping company. The projects therefore, will be presented differently and reflect the vast range of areas of expertise, but may not rely on a standard written submission. They may include the creation of an artefact, together with a critical commentary of its creation, or it may be an evaluation of a video of practice or a portfolio record of the development of a corporate policy. Consequently, the methods of learning and assessment must respond to and cater for different modes of presentation, but also provide standard criteria that can provide a consistent and

rigorous assessment framework for both undergraduate and postgraduate levels and across subject areas. Due to the nature of these projects, the role of adviser is less of a 'supervisor' and more of a learning consultant who enables the learner to see learning opportunities as they emerge, facilitating a metamorphosis into a project that is purposeful and academic, whilst also allowing the personal and career aims of the learner and the practical needs of the employing organisation to be met (Boud & Costley 2007).

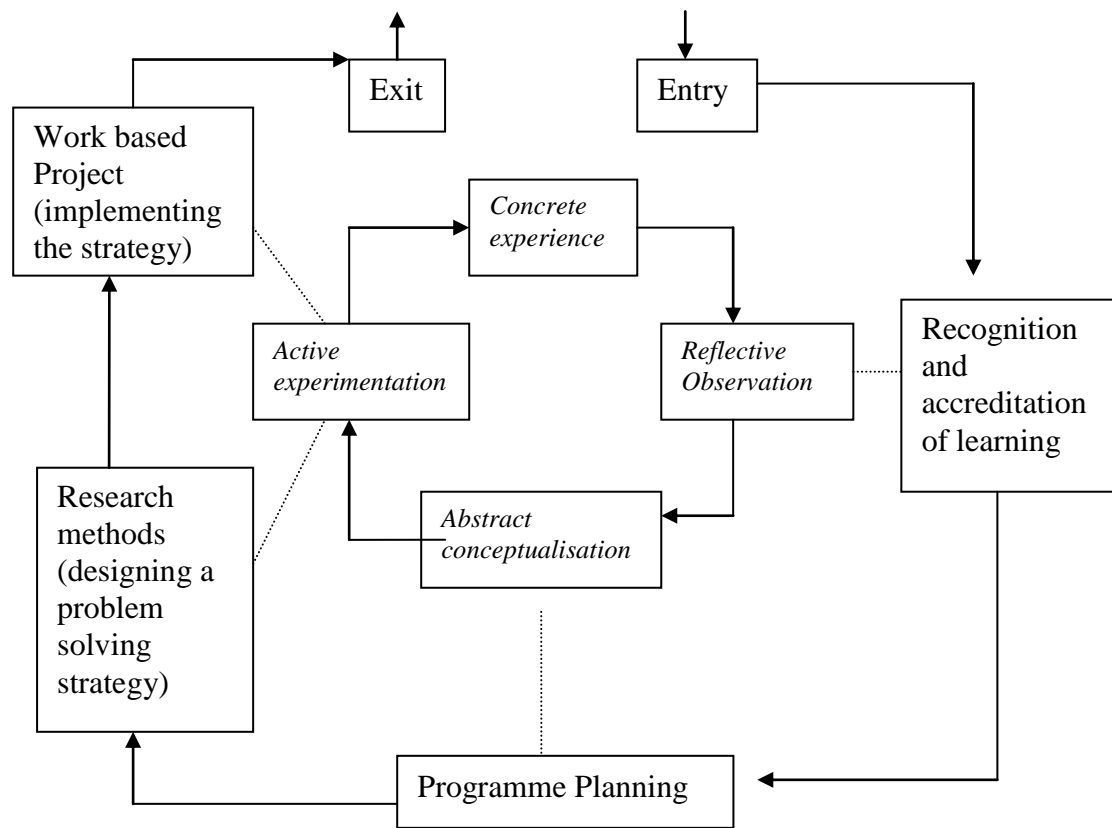
Biggs (1999) states that good learning and teaching activities are those which enable the student to reflect upon, question and analyse new ideas and information. He identifies four characteristics which promote this within a curriculum; a well structured knowledge base, appropriate motivational context, learner engagement in the task and interaction with others. The WBL programme meets these criteria in that the knowledge base that the student brings is knowledge of their own subject area and work context, supplemented by new learning which is facilitated through the programme, but highly focused and relevant to their work. The context provides the motivation and application to work, particularly as the content is negotiable. By beginning with an exploration of their own learning, learners become intrigued with what they know, but also how much they do not know, and are stimulated to find out more. The recognition that learning at work is not confined to classrooms, but is liberated into the workplace through interactions with colleagues and clients, or through work and management systems, places the learner at the centre of the learning experience rather than being teacher centred.

The new knowledge engendered from the project not only contributes to the organisation (Garnett 2005), but the learning from the process includes insights into organisational behaviour and networks, and equips the worker/ student with new understanding of their organisation and profession. The knowledge that is required in such an assignment may contain only a limited amount of disciplinary knowledge, perhaps newly applied to changing and enhancing practice, but is supported and defended by the intellectual case made through taking account of the academic requirements as well as organisational needs (Costley 2007).

The learning cycle as described by Kolb (1984) (Figure 2) underpins the learning stages inherent within the WBL programme and is particularly evident when the student undertakes the final project that is founded on work practices and contributes to work as a whole.

Figure 2

Kolb's (1984) Learning cycle as overlaid upon the Middlesex University WBLS curriculum framework.



(Doncaster 2000)

Key

Inner boxes represent Kolb's experiential learning cycle

Outer boxes represent Work Based Learning studies core modules

Lines between elements of Kolb's cycle and specific core modules shown by broken lines

Assessment

Assessment in Higher Education (HE) is considered to have a number of functions which include directing learning, promoting learning activities and focusing aspects of learning behaviour (Bryan & Clegg 2006) as well as providing feedback on quality assurance aspects of the programme. These functions are the same whether it is work based learning assessment within higher education or traditional assessment activities. Students have become increasingly strategic in the way they allocate their time and effort to learning and see assessment tasks as taking priority in their programme (Gibbs 2006). Students take their cues from academics as to the assessment within a course and may not explore wider aspects of new theories because, pragmatically, they have limited learning time in which to maximise their academic success and this is achieved by focusing only on the assessed task (Gibbs 2006), thereby limiting the range of subject knowledge which they study. The challenge for an academic programme is therefore to integrate key learning into the assessment task in order to

ensure that the learning is undertaken; thus it follows that the assessment shapes the curriculum (Shacklock & Morgan 2002). In WBL where work is the curriculum, assessment that is closely aligned to work activities will motivate the students and enable them to extend their knowledge and skills in line with work and assessment demands.

In WBL there are additional assessment pressures as individuals must function competently in the workplace as well submitting academic assignments, as all the Middlesex WBL students are primarily workers studying part time rather than full time students working part time. The challenge therefore for WBL in HE is to provide assessment tasks that align assessment requirements with individual's learning needs, whether those are intellectual challenges or achievement of practical competences. This includes aspects of assessment that monitors individual performance and progress against course performance indicators and quality assurance standards, but which also broaden academic skills and knowledge, and engage individual's in studying areas of preferred academic interest. The use of reflection facilitates and integrates the student experience with new knowledge and practice to gain insights as a practitioner (Schön 1987), to apply to future practice, and to develop and enhance knowledge in both academic and professional arenas (Major 2005).

Gibbs (2006) identifies the aims of assessment as having six main functions: capturing student time and attention; generating appropriate student learning activity; providing timely feedback which students attend to; helping students to internalize their chosen discipline's standards and notions of quality, marking and generating grades to distinguish between students or which enable pass or fail decisions to be made; and quality assurance which provides evidence for others to judge the appropriateness of the course. WBL programmes endeavour to fulfil these aims throughout the programme using a variety of teaching, learning and assessment strategies.

Due to the nature of the WBL programme recruitment, there is potential for a wide range of subject focus. A second supervisor is recruited to assist in the academic support and assessments, particularly of the APEL and project stages to ensure subject expertise. This provides academic support which reflects the subject discipline and it's notions of presentation in academic and subject specialist work (Bryan & Clegg 2006). Over the years the work based learning group have been able to involve a wide range of subject experts from both inside and outside the University to provide specialist input and have consequently developed partnerships leading to increased involvement in work based learning programmes as a whole. The WBL programme adviser remains involved with the student to ensure that the processes of the WBL programme and progression are coherent. Brown (1999) suggests that employers, tutors and line managers are often best placed to assess learning undertaken outside the HEI, and indeed many work placement students have been assessed by employers on courses where work based learning is used as a mode of study. In WBL it is not expected that employers will be involved in the assessment process, particularly as the assessment activity reflects academic rather than occupational requirements. The WBL programme is not assessing work based competence, therefore we are not involved in assessment of work, and similarly, employers are not expecting to assess academic activities. This gives flexibility within the assessment process, without adding additional concerns or responsibilities for practice capability or academic

performance, thus enabling the adviser to support the learner's academic needs and expectations. Advisers have to steer learners through the high-level judgements and decisions that take place within complex work situations, from which learner's can effect change or enhance their own practice (Boud & Costley 2007), and do this by providing adviser support at a distance without additional pressure of assessing real time work activity.

Gibbs (1999) notes that timely feedback to students can be used within summative assessments, thus contributing positively to good assessment practice, and improving the learning experience of the student. Early feedback provides time for the student to use it to improve their work and also indicates whether they are meeting the expected standards and criteria and to what degree the work is meeting course expectations. Gibbs (2006) also suggests that peer assessment is helpful in providing students with formative feedback, either at interim points or when students are undertaking tasks without marks. This is a strategy that is used in some components of the WBL programme where the virtual learning environment (VLE) may be used to comment on shared work examples, or when students present their proposals for work based projects to their peer group for feedback and critique. These activities encourage the students to critique their own work and to learn to interpret it in the light of the WBL level descriptors and key performance questions, thus developing skills of comparative evaluation (Brown 1999).

The WBL advisers actively encourage submission of draft work as formative assessment to monitor student progress and understanding of the assessment task. This may be the only contact that the WBL adviser has with the students as few WBL students attend the university campus during their programmes and are therefore reliant on teaching strategies, such as formative assessment, to get feedback and interact with their adviser. The onus therefore, is on the learner to become self directed and independent in their learning approaches, taking the initiative in contacting their adviser, seeking out information to inform their inquiry and pursuing locally based policies and information. Due to the positionality of the learner, that is, primarily in the workplace rather than in the University, the context and social dimensions of work and learning is absolutely crucial to all WBL learners, and it is essential that the adviser appreciates the idiosyncrasies of the work environment and the work context within which the learner is engaged (Boud & Costley 2007) and reflect this in academic feedback and adviser support..

Case study

Robert works as a community nurse. He identified a health need in his locality that needed easily accessible information. As the final project in a Bsc (Hons) Work Based Learning (Community Nursing) he worked collaboratively with colleagues to introduce and evaluate a health information leaflet, which was rapidly adopted by other local health care practitioners as being responsive to local health promotion needs. As a distance learning student and one that did not find studying easy, he sought advice during the project process by means of sending draft work by email for his advisor to comment on and make suggestions, supported by telephone tutorials, and paced to meet his personal time requirements. He never met his advisor until the final oral presentation of the project, when he came in person to present his project. He graduated with a first class honours degree, having responded well to advice and

academic direction, and developing academic and critical enquiry skills far beyond those anticipated when first entering his profession.

Criterion Referenced Assessment Level Descriptors

To aid marking and grading of work and development of specific learning abilities WBL level descriptors have been devised to provide assessment criteria for all curriculum components. Each module has learning outcomes designed to apply the level descriptors to specific assessment tasks, but all assessments involve the use of the level descriptors. With criterion referenced assessment, it is possible to say what the student must be able to do, teach them to do it, and then assess their ability to do it (Biggs 1999). As all the WBL assessments are strongly qualitative in nature, the expectations of what a piece of work at a particular academic level looks like, can be captured and expressed within these qualitative statements. Consequently eleven key level descriptors have been generated and specific interpretations for each academic level have been derived from them, so that all assessors and students can refer to the level descriptors at a given academic level. The level descriptors are also mapped against programme specifications for the range of undergraduate and postgraduate programmes, and are elaborated upon and applied to each individual module as learning outcomes.

The level descriptors reflect the following key areas of assessment which are given in Figure 3 below.

Figure 3: Level Descriptors

- Identification and appropriate use of resources of knowledge and evidence
- Selection and justification of approaches to task
- Ethical understanding
- Analysis and synthesis of information and ideas
- Self appraisal/ reflection on practice
- Action planning leading to effective and appropriate action
- Evaluation of information and ideas
- Application of learning
- Effective use of resources
- Effective communication
- Working and learning autonomously and with others

Each of these level descriptors has elements of importance within each module and a holistic approach to assessing the full range of abilities is taken, especially in relation to negotiated project modules. The benefits of this approach means that learning builds upon previous knowledge and develops in complexity (Biggs 1999).

Assessment by criteria reflects the level of academic complexity and how it matches the module objectives rather than how it compares across students, thus being very appropriate for WBL students who are often developing trans-disciplinary skills and to a lesser degree, subject discipline knowledge. A holistic approach to assessment recognises the intrinsic meaning of the overall assessment therefore making it difficult to be proficient in one aspect and inadequate in another and still pass (Biggs 1999).

Consequently, WBL students must demonstrate not only achievement in their analytical abilities or problem solving skills, but also application to the context of their work and critical rigour in their judgements.

Assessment Characteristics

The use of criterion referenced assessment provides a fairer and more accountable assessment regime than norm referencing as the student is measured against standards of achievement rather than against each other (Dunn et al 2002), thus fulfilling the Quality Assurance Agency (QAA) requirements for equity and accountability in assessment. These assessment criteria are stated and made available to the students at the beginning of their programme so that application is transparent at the outset. The process of devising and using criterion referenced assessment has been criticised as requiring considerable negotiation to identify agreed criteria, although some suggest that the descriptive standards echo competence statements and are perceived as being reductionist and task orientated, resulting in subjective assessment decisions (Dunn et al 2002). These criticisms may be apposite to positivist subject disciplines whose grading systems traditionally follow a specific distribution curve or normative assessment. Within WBL, which reflects a social constructivist curriculum philosophy (Biggs 1996), once assessors have become accustomed to the range of criteria available, a responsive and structured approach to assessment feedback develops which extends to the student's evaluation of their own academic work.

To demonstrate the applicability of one such criteria at a variety of levels, the figure below shows an example of how a criteria stem is developed to relate to each academic level, indicating the context and level of academic complexity expected of the student. (Figure 4)

Working and learning autonomously and with others (Figure 4)

- Level HE 1: (certificate)

Working and learning autonomously and with others will be in a familiar context and may contribute to effective team working

- Level HE 2: (intermediate)

Working and learning autonomously and with others will often be in a familiar context and may influence effective team working

- Level HE 3: (graduate)

Working and learning autonomously and with others may span a range of contexts and is likely to challenge or develop the practices of others

- Level HE 4: (masters)

Working and learning autonomously and with others and/or within a team will span a range of contexts, often in a leadership role, and is likely to impact upon personal and professional understanding

Case study example:

Geraint is a manager in public sector services. He undertook a WBL project at Masters level to investigate the initiation of a change of service provision to clients. By using a series of action research cycles he consulted all interested parties and stakeholders and subsequently designed service changes that took government imperatives, service restraints, clients preferences and colleagues experiences into consideration, resulting in a new service that met stakeholder needs, as well as

developing his personal understanding of organisation and service development. This project was therefore assessed in the practice area by the virtue of being put into actual practice and demonstrated stakeholder consultation resulting in an improved public service. This project activity clearly reflects the above level descriptor at level 4 as it demonstrates the involvement of others in the project as well as the leadership and sphere of influence required of the project leader.

If this descriptor is applied to another WBL project at graduate level, learning outcomes can be written to reflect the level criteria as follows:

Application to a level HE L 3 WBL project as a learning outcome:

- Identify, analyse and evaluate your role and, as appropriate, the role of others in the project. If applicable include taking the lead role in the project and demonstrate how you have taken your ideas forward.
- Take responsibility for overseeing other collaborative aspects of the project work, clarifying the areas in which you have worked particularly with others.

These are applied in practice as illustrated in Robert's case study who engaged other multi disciplinary professionals in his project and influenced the work within his geographical health care location. Similarly when applied to a Masters level programme as in Geraint's case study, the descriptor has been extended and expectations of performance deepened.

- Level HE 4: (masters)

Working and learning autonomously and with others and/or within a team will span a range of contexts, often in a leadership role and is likely to impact upon personal and professional understanding

Becomes:

- Critically evaluate your role and, as appropriate, the role of others in the project. If applicable include taking the lead role in the project and demonstrate how you have driven your ideas forward.
- Take responsibility for overseeing other collaborative aspects of the project work clarifying the areas in which you have worked particularly with others.

As WBL students use work projects which are real at work to fulfil their award requirements, these learning outcomes are achievable because of the applicable real time nature of the work activities and required outputs. The student is able to develop project management skills as part of the learning process, and reflections upon the progress and outcomes of the project and the development of their own skills of critical enquiry and evaluation is expedited by the formal record within the academic project report of the processes involved. There is an oral presentation of the work to academic advisors, but by virtue of the fact that it was undertaken at work, it comes into the real work domain. Being able to see the impact of a project in the 'real' world does much to integrate learning of new knowledge into the practice context, as well as providing motivation for personal learning (Dunn et al 2002), and is congruent with adult learning theories (Knowles et al 2005, Rogers 1983). Should the student encounter difficulties during the lifespan of the project, alternative strategies and interventions may also be tried, tested and incorporated into the learning. Biggs (1999) argues that learning from direct experience and being allowed to make errors and find alternative solutions to practical and intellectual problems recognises the

social contexts and learning communities in which authentic assessment occurs, and that a model of alignment of the curriculum which links learning outcomes to assessment tasks and criteria makes learning meaningful for both individuals and groups. This is evident within the WBL assessment process as each assignment the student successfully completes builds upon previous learning and directs future learning within the work environment. This aspect also confirms the reliability and validity of the assessment activities, as the level descriptors provide a consistency of assessment criteria across a variety of subject areas and trans-disciplinary work activities, thus demonstrating reliability and application of new knowledge within a real situation, hence demonstrating validity.

Case Study

A cohort of 6 students completed a Masters programme whilst working in Cancer services improvement nationally within the NHS; several of them working to modernise services to speed patients through the waiting lists for surgery or diagnostic treatments. Their backgrounds varied from health care professionals, such as nurses, to administrators who had demonstrated a flair for project management. The programme started by recognising the in-house training provided by the NHS in service improvement techniques and processes, for which each student made an individual accreditation claim by portfolio. It concluded by each student working on projects in their own NHS Trusts. These projects included: reducing waiting times for urological and gastro-intestinal investigations, introduction of patient information for cancer services across an NHS Trust hospital; User involvement in designing cancer services; redesigning radiology and ultrasound services and evaluation of video conferencing consultations. The WBL core curriculum provided an academic pathway that recognised the unique and influential roles that these students had in their own workplaces, and provided a framework within which they could gain an academic qualification. Three of the cohort gained a Masters with merit, achieving service improvement concurrently.

In terms of applying criterion referenced assessment the project work that they undertook required a clear application of 'Ethical understanding' at HE 4 Level, as stated in the learning outcomes for the project module:

- Show understanding of the project's underpinning values. Take account of the ethical implications involved in the projects development processes, methodology and likely outcomes.
- Show an ethical understanding of the specialised work contexts in which the project is undertaken, including full and critical understanding and sensitive application of appropriate prescribed ethical codes.

All participants had to demonstrate that they had gained permission to pursue their projects within the ethical frameworks of the NHS; no mean feat in this day and age of rigorous clinical governance and legislative requirements to protect confidential data and vulnerable individuals. This also demonstrates that the learning gained from these projects had to be fit for purpose in order to meet government targets in reducing waiting lists, which in itself provides an assessment measure by their employers. Inability to achieve such targets would mean termination of a contract, and therefore the learners' were highly motivated to succeed.

Assessment Dimensions

Using qualitative assessment methods such as portfolios and projects promotes deep learning. The characteristics of deep learning include motivating the learner to take responsibility for the learning task, thus recognising its meaningfulness and appropriateness in relation to their practice, which requires a depth of relevant knowledge that encourages the learner to ask questions and seek answers (Biggs 1999). For the teacher, this requires a facilitative teaching approach that seeks to develop what the learner needs to know, and developing his/her problem solving and inquiry skills so that these skills are developed and transferred to future situations, without the teacher having to be the fount of all knowledge. As Osbourne et al (1998) note, the independent learning process involves self assessment by the learner, who has to gauge whether s/he are reaching her/his chosen academic level, and to seek feedback to that effect, thus developing skills of academic judgement and critical appraisal of their own performance.

The assessment strategies also tend to stimulate divergent thinking. This is a learning approach which leans towards alternative thinking approaches, where there may not be a right or wrong answer, but where originality, usefulness, self-expression and creativity feature, whereas convergent thinking requires particular and specific answers, often with a scientific bias (Biggs 1999). Whilst studies suggest that convergent thinkers tend towards science and divergent thinkers towards arts, a mixture of the two approaches allows the development of a theoretical foundation from which to ask questions and creatively explore the unknown within a given context. Initially this can be challenging for the facilitator but WBL students tend to have a strong pragmatic element within their studies, and benefit from both permission and opportunity to develop alternative thinking modes as part of their academic development, and therefore the facilitator has to adapt and respond to the uncertainties of knowledge that this thinking might generate. The use of portfolios and projects as assignment activities allows the factual aspects of knowledge to be stated and evidenced and creative problem solving approaches to be applied and demonstrated.

Quality Assurance

Specific features of quality assurance are addressed in chapter X by Garnett, but WBL is subject to the same quality procedures of double marking, external examining and moderating as in any other programme of the University. Although assessment is usually contextualised within a specific work situation (Costley 2007) and is clearly moderated against transparent standards and criteria, for some reason traditional HEIs are unnerved by the thought of quality procedures within WBL. Building in a rigorous assessment framework as part of the programme development ensures that the university takes control of the processes and structures of the programme, leaving the content to be evidenced by a number of different modes, all of which are similar to standard HE procedures. The use of criterion referenced assessment ensures consistency of academic judgement for all subjects, thus emphasising the trans-disciplinary nature of WBL. The core features of any academic programme are the ability to critically appraise, analyse and synthesise information and develop skills of problem solving and decision making within a given context. In WBL level descriptors make the assessment criteria explicit to all participants in the teaching,

learning and assessment process, and can be used to make learning outcomes explicit as demonstrated above, thereby enabling the curriculum to demonstrate its relevance and application to real time work.

Conclusion

WBL as a field of study is designed to equip individuals with skills such as critical reflection and analytical enquiry in order to appraise and interrogate their own practice and work as well as that of others. The knowledge that is developed is not all from the academic institution, as some is engendered from the work itself, signifying that WBL knowledge may not originate from within academia but from work (Portwood 2000). Learning, teaching and assessment in WBL in HE should foster learners' skills in developing, extending, critiquing and assessing their own knowledge, including that from academic origins as well as that which originates from work. It provides opportunities for academics to evaluate learning from work, acknowledging the dynamic evolutionary nature of such learning, which can then inform future research and enquiry into the nature of WBL.

Word count 5731

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